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Citation for published version:

Holloway, A & Webster, B 2012, 'Alcohol Education and Training in Pre-Registration Nursing: A National Survey to Determine Curriculum Content in the United Kingdom (UK)', *Nurse Education Today*.
<https://doi.org/10.1016/j.nedt.2012.10.011>

Digital Object Identifier (DOI):

[10.1016/j.nedt.2012.10.011](https://doi.org/10.1016/j.nedt.2012.10.011)

Link:

[Link to publication record in Edinburgh Research Explorer](#)

Document Version:

Peer reviewed version

Published In:

Nurse Education Today

Publisher Rights Statement:

© Holloway, A., & Webster, B. (2012). Alcohol Education and Training in Pre-Registration Nursing: A National Survey to Determine Curriculum Content in the United Kingdom (UK). *Nurse Education Today*.
10.1016/j.nedt.2012.10.011

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Alcohol Education and Training in Pre-Registration Nursing: A National Survey to Determine Curriculum Content in the United Kingdom

INTRODUCTION

The burden of alcohol-related harm is internationally recognised as a global health problem (World Health Organisation [WHO], 2011). The associated mortality, morbidity, economic and social problems related to excessive alcohol consumption is estimated to lead to 2.5 million deaths per year (WHO 2004; Rehm et al. 2009; UNODC 2009; WHO, 2011). In addition, alcohol has been identified as the second largest risk factor for disease burden in Europe and the leading risk factor in the Americas and the Western Pacific (WHO, 2011).

As the largest group of health care professionals, nurses from all fields of practice, are well placed to identify patients' levels of alcohol consumption, offering advice in relation to reducing levels of alcohol consumption, delivering brief interventions where necessary and referring onto specialist alcohol services where appropriate (Nkowane & Saxena. 2004; Murray & Li 2007; Watson et al. 2010).

However, the evidence suggests that nurses are not engaging with this important role (Tsai et al, 2010) with a lack of alcohol education and training being identified as a key barrier to this element of practice (Rassool & Rawaf 2008a). At present there is no requirement for a compulsory alcohol education and training component within pre-registration nursing curriculum in the United Kingdom (UK).

In the UK, at the time the data was collected, all those wishing to undertake nurse training were required to undertake a degree or diploma programme at a University. The programmes consist of an equal split of theory and practice. The successful completion of this education leads to an academic award and professional registration as a 1st level

nurse. The standards of proficiency for registration with the nursing professional body (Nursing Midwifery Council [NMC]) are the same irrelevant of what field of nursing is studied. Across the UK, the length of study varies with the majority of programmes being 3 years long, however in Scotland and for 1 programme in England, programmes offered can be up to 4 years in length. From 2013 in the UK, all programmes offered will be at degree level with the phasing out of the diploma option of training.

Currently there is no national overview of alcohol education, training or skills provision in nursing education programmes in the UK. The aims of this study were therefore to establish the extent and nature of alcohol education and training in pre-registration nursing curriculum in the UK and to make appropriate recommendations for consideration in curriculum development from a UK and an international perspective.

BACKGROUND

The nature of alcohol interventions are varied depending upon the pattern and level of alcohol consumption. In recent years, for non-specialist nurses, the role in the delivery of interventions has focused on prevention and treatment of alcohol-related harm through the delivery of Screening and Brief Interventions (SBIs). Such screening and brief interventions can be delivered by nurses in a variety of health care settings such as primary care (Lock et al. 2002; Kaner et al. 2007; Solberg et al. 2008), general hospital (Holloway et al. 2007), Accident & Emergency (A/E) (Coulton et al. 2009), criminal justice (Newbury-Birch et al. 2009) and occupational health (Watson et al. 2009).

Despite being aware of the negative impact alcohol can have physically, psychologically and socially, the evidence strongly suggests that nurses fail to identify and engage with patients experiencing alcohol-related harm (Vadlamudi et al. 2008). Lack of adequate education and training, inappropriate attitudes or beliefs, lack of confidence and

uneasiness in raising the issue of alcohol use with patients have been identified as barriers (Brown et al. 1997; Happell et al. 2002; Lock et al. 2002; Rassool & Rawaf 2008a; Rassool & Rawaf 2008b; Vadlamudi et al. 2008; Tsai et al. 2010; Lacey 2011). In the UK (Rassool & Oyefeso 1993; Rassool & McKeown 1996; Rassool 2000; Gill & O'May 2011), the United States of America [USA] (Hoffman & Heinemann, 1987; Murphy 1989; Naegle 1994; Church 1995; Murray & Savage 2010), South America (Pillon et al. 2003; Rassool et al. 2006), Australia (de Crespigny 1996; Happell & Taylor 1999) and Asia (Tsai et al. 2010) the need for alcohol education and training has been acknowledged and is therefore of global concern and relevance to nurse educators. The capacity of countries to reduce the negative impact of alcohol on health would be greatly increased if nurses have basic clinical skills in relation to the prevention and treatment of alcohol related health consequences (Murray & Savage 2010) and therefore should be a key component of learning within a pre-registration nursing context.

Models of Curriculum development

There have been efforts by educators internationally over the last 2 decades to develop undergraduate pre-registration curricula in alcohol education and training for nurses utilising a variety of methods and approaches. In the USA, Church & Babor (1995) developed a model programme for integrating educational modules in alcohol and other drug abuse at undergraduate and faculty levels. Nursing Education in Alcohol and other Drug Abuse (Project NEADA) viewed curriculum innovation as a range of dynamic processes comprising skills and training, attitude change and consensus building. Drawing from organizational theory and faculty development models, initiatives were developed to promote organizational change to ensure the successful implementation of curriculum change. The evaluation of Project NEADA indicated that despite an appreciation of the importance of substance use disorders in nursing, there was a reluctance to allocate time within the curriculum unless key stakeholders were actively involved.

Hayes (2002) developed a collaborative model for substance misuse integration in nursing education in 4 baccalaureate Schools of Nursing in the USA. The author conducted a comprehensive substance abuse education and training needs assessment (n=40). This comprised of questions on: current level of substance abuse knowledge, what alcohol and other drug subject was currently being taught, the importance of substance abuse education in their programme, alcohol and substance abuse training, and continuing education and training needs. The needs assessment identified that at least half of the staff felt they needed professional development in the identified area, only 10% had received education or training in substance abuse within the past year and it had been more than 5 years since they had last received training for almost half of the respondents. Almost 60% had never taken any courses in this area with self-reported knowledge levels for substance abuse topics very low.

A faculty programme of activities was developed to include: screening and assessment; progression of chemical dependence; signs and symptoms of chemical abuse/dependence; prevention and intervention resources; understanding process of withdrawal, addiction, relapse and recovery; and multicultural training. By means of a 'train-the-trainer' approach, key individuals attended the planned continuing education activities serving as content specialists, role models, peer consultants, catalysts and facilitators of curriculum integration within their individual schools. The outcomes demonstrated continuing education activities, acquisition of additional teaching resources, the development of an integration model and increased curriculum and clinical contact hours. Despite the lack of a paired *t* test to compare pre and post group knowledge scores for individuals, total knowledge scores across the school demonstrated a statistically significant change ($p < 0.01$). In addition, there was a large increase in the course content hours and clinical experiences within the subject area in each of the 4 Schools with all schools at least doubling their pre-project hours.

In the UK, Webster et al (2002) worked in partnership with key stakeholders; a community outreach worker, a nurse consultant, a communication expert and an

academic. Each played a key role in relation to curriculum development e.g. the community outreach worker provided relevance to the area of therapeutic communication. The nurse consultant role was to focus on identifying a strategic link between the needs of practitioners and development of skills. The academic role was to facilitate the process and ensure an evidence-based curriculum with a philosophy of problem-based learning was constructed. The authors endorsed the key role of practitioners in responding to the increased rise in patients with coexisting morbidity within the field of substance use.

Curriculum evaluation

There are many examples of alcohol education materials for educators to draw upon and utilise, however what is lacking is the rigorous evaluation regarding their effectiveness. Where there has been evaluation, it has rarely focused on the impact of the provision of alcohol education and training in pre-registration nursing curriculum (McAvoy 2000). Evaluations have been undertaken with non-specialist health and social care workers (Gorman et al. 1990), psychiatric nurses (Hagemaster et al. 1993), General Practitioners (Anderson et al. 2004) and emergency department staff (King et al. 2004). The literature presented will focus on pre-registration nurses where, despite small sample sizes and methodological weaknesses in most studies, positive effects have been observed.

Vadlamudi et al (2008) evaluated the effect of an educational intervention on the attitudes, beliefs and confidence levels of pre- and post-registration student nurses (n=181) regarding screening and brief intervention for alcohol problems. Study participants received a four-hour educational training intervention focused on Brief Negotiation Intervention (BNI) technique with the aim of improving care for those patients with alcohol problems through identification and delivery of advice. Data was collected before and after educational intervention delivery by means of a 100-item

questionnaire which consisted of a five point Likert scale to assess knowledge, attitudes and confidence levels. The intervention itself consisted of an interactive lecture and a role-play demonstration. The results demonstrated statistically significant positive changes in the nurses' attitudes, beliefs and confidence levels regarding alcohol abuse and its treatment (95% CI, $p=0.000$).

In a response to alcohol abuse amongst teenagers in Australia, Willsher (2010) developed a health promotion strategy on alcohol consumption taught to 2nd year undergraduate nursing students. The Australian Nursing and Midwifery Council Competencies for Registered Nurses (2006) were used as the framework to educate the nursing students in delivering health promotion on alcohol consumption for young people. Although student feedback was positive regarding their experience of the course there was no formal evaluation data provided other than some quotes. This makes it difficult to assess the impact the course had on levels of competence and furthermore, practice.

In a quasi-experimental pre-post-test design Rassool & Rawaf (2008a, 2008b) evaluated the impact of an educational programme on alcohol and drug knowledge acquisition, changes in attitude and intervention confidence skills of 4 cohorts of undergraduate nursing students ($n=110$) in England. The results indicated that the educational intervention had a significant impact on educational outcomes, knowledge mean scores ($t=-4.61$, $d.f.=109$, $p=0.000$), attitude ($t=-2.36$, $d.f.=109$, $p=0.02$) and intervention confidence skills ($t=-9.75$, $d.f.=109$, $p=0.000$).

The background literature demonstrates that for over a decade alcohol education and training for pre-registration nurses has been identified as lacking.

METHODS

Design

A descriptive, cross-sectional survey design was used.

Sample and Recruitment Procedures

At the time of data collection a total of 68 Universities across the UK provided pre-registration nursing education, comprising of 111 pre-registration courses. All 68 were invited to participate in the study. An Introductory letter and Study Information Sheet were e-mailed to the appropriate course director/programme lead/Head of School for the relevant pre-registration course informing them of the purpose and nature of the study and outlining what study participation would involve. One week later an e-mail was sent providing details of how to log in and complete the online survey. A total of 4 reminder e-mails were sent out over an 8 week period.

Data collection

A total of 111 emails were sent to 86 contacts in Schools of Nursing in the United Kingdom. Data was collected from those institutions consenting to participate utilising an online questionnaire survey between June 2011 and September 2011. Each e-mail contained a link to the online survey website and a Unique Identifier Number that respondents would use to access the online questionnaire relevant to the corresponding course. Respondents were asked to provide information regarding the nature and extent of alcohol education and training on pre-registration nursing degree, diploma, post graduate diploma and advanced diploma courses studied by student nurses.

Instrument

Questionnaire

The instrument used was a revised version of a questionnaire used in a previous national survey to measure pain in the health care curriculum (Briggs et al 2011). Briggs et al (2011) had successfully utilised their questionnaire to collect data regarding the nature and extent of pain education in the curricula of health care programmes in the UK (n=74). Permission to use the questionnaire and revise it was obtained by the study investigators. At the time of data collection there was no published data regarding the psychometric properties of the original questionnaire. Due to the generic nature of the questionnaire key components there was very little revision required to make it alcohol specific. The revised questionnaire was sent to an expert panel of academics, practitioners and researchers who worked in the field of alcohol related harm for comments to obtain feedback on content validity (Oppenheim, 1992). The questionnaire was pilot tested on 2 Graduate entry programme course directors. Two questions were redesigned following these processes.

The data collection instrument was a 5 page online questionnaire. The questionnaire comprised of 4 sections. Section 1-3 comprised of questions regarding the type and nature of the course, general information regarding alcohol content i.e. hours of shared learning, disciplines/staff involved and resources used. The final section collected detailed data regarding the number of hours specific alcohol content was taught and how many hours of specific alcohol content adult, child, mental health and learning disability students received.

Ethical considerations

An application for ethical approval was granted by The University of Nottingham Medical School Research Ethics Committee. The authors utilised the British Educational Research Association Guidelines (BERA 2011) as guiding principles in forming their ethical approach to this study. These principles provide an ideology regarding best ethical practice for educational research with regards: the person, knowledge, democratic values, the quality of educational research and academic freedom (BERA 2011).

Data analysis

Study data were entered into a Statistical Package for Social Sciences (SPSS) (version 18) file for analysis with descriptive statistics (frequencies and percentages) used to illustrate the proportion and variation of courses within Universities offering alcohol education and training to undergraduate pre-registration nurses. On initial inspection of the data there were no meaningful differences noted between degree and diploma programmes therefore the data was pooled for analysis irrelevant of type of programme offered. Our aim was not to establish a difference between types of pre-registration programmes, while the academic award offers different pathways to graduation for degree and diploma programmes, the NMC requirements are the same.

RESULTS

One hundred and eleven e-mail invitations were sent out to 86 contacts in 68 Universities across the United Kingdom. There were 29 completed questionnaires, a response rate of 26%. The largest number of identified responders were from England (n=15), with 3 from Scotland and 1 each from Wales and Northern Ireland. Nine Universities chose not to identify themselves. A number of respondents (n=19) had responsibility for more than one pre-registration course. Curriculum content on

alcohol/alcohol-related harm was mandatory on more than half of all degree and diploma courses (n=24). Of these, the content on most courses was delivered through integration into general modules, with only one diploma and one degree course offering this aspect as a separate module.

Alcohol education curriculum content within the fields of nursing practice

Across all respondents, teaching of alcohol and alcohol related harm was mainly delivered during the second year of a pre-registration nursing programme (Table 1) and this was mainly provided to adult and mental health students. Students' within children's nursing or learning disabilities were least likely to be offered formal learning on alcohol related issues. The number of students receiving content relating to misbeliefs, barriers and challenges were greatest for adult and mental health students (Table 2). The delivery of curriculum content was provided in the main by permanent academic staff with a minority of teaching by clinical specialists. Speakers from the voluntary sector were least used across the majority of respondents. The majority of curriculum content relates to biophysiology, aetiology, pharmacological and non-pharmacological interventions. From the data, adult student nurses receive the most input on the identification and assessment of alcohol related harm, with 23 instances of teaching delivered to more than 50 students.

Number of hours alcohol-related content delivered

The time allocated to the teaching of biophysiology/aetiology programme content was greatest for learners in the Adult and Mental Health Branches. Six hours or more biophysiology/aetiology content were offered in both Years 1 and 2 on seven programmes for Adult Branches, with a slightly smaller proportion of courses in Mental Health receiving this level of content. Courses with least input in this topic area were

Learning Disability Branches. Mental Health and Adult Branches also received the greatest amount of time (2-3 hours) on the prevalence of alcohol-related harm topic. However only 3 programmes offered Adult Branch Students input regarding misbeliefs, barriers and challenges regarding alcohol-related harm for 6 hours or more compared with 9 programmes who offered this amount to Mental Health students. Course content on the identification of alcohol-related harm appears concentrated in Adult Branch teaching but also in the Child Branch (especially Year 2), and the Mental Health Branch. The most time that was devoted to the pharmacological management of alcohol-related harm was for Adult Branch (4 courses) and Mental Health Branch (5 courses), both of whom offered 6 hours or more in Years 1-3.

Interdisciplinary learning or Shared learning

Most universities did not facilitate the opportunity for their students to engage in learning opportunities with other disciplines (83%, n=24). One University provided shared learning across all 3 years of its programme, one provided shared learning in Year 1 and 2, one provided shared learning in Year 2 and 3, whilst 2 Universities provided shared learning in Year 2 only. Blended learning, lectures, seminars, case studies and web-based material were identified as most common methods of delivery during shared learning. Shared learning was delivered in 3 of the cases by individuals with specific expertise or specialist interest in alcohol/alcohol-related harm.

Teaching and Assessment

Internet and case studies were identified as the alcohol education resources that would be 'very' helpful. Interestingly, a much smaller proportion identified modules as 'very' helpful (Table 3). Less than half (n=10) of courses included alcohol/alcohol-related harm elements as part of formal or summative assessments within their programmes.

New and planned programme content

Most respondents said that they were writing a new pre-registration programme, in addition, several Universities indicated that they would be introducing changes to the presence of alcohol education content which would have an increased emphasis across the span of the student learning experience and would be embedded in scenario based learning (Table 4).

Additional Comments

There was within the respondent's, a recognition by some of the importance of the escalating problems of alcohol. One respondent identified;

"Profile of this topic needs to be raised given the high incidence of alcohol abuse amongst students" (University A)

Some of the comments wanted to highlight other areas where some initiatives were being offered in relation to alcohol and related harm;

"During year 3 some students as part of their community placement will have the opportunity to work with the drug and alcohol treatment teams, students contribute to enhancing practice for clients with drug and alcohol dependency" (University B)

Yet another respondent from a separate University highlighted a strong example of excellent practice;

"Our local Health Education Institutions have worked together to develop an education package on delivering brief intervention training to undergraduate nurses and issues related to alcohol misuse is integral to this" (University C)

DISCUSSION

Year 2 appears to be a significant time for academic staff to teach students about alcohol related issues, this needs to be questioned as there is no evidence as to why year two would be the optimum time within a student's journey. Curriculum models have highlighted the need for a more stepped and integrated approach to alcohol education (Church and Barbor 1995). Alcohol is a global problem and yet the results demonstrate that learning disability and children's student nurses receive little to no input on alcohol related issues. It could be argued that this is an outdated approach as alcohol is a whole population and global problem which can have a harmful impact on all of society (Bjerregaard et al 2012, De Los Reyes et al 2010, Molina & Pelham 2001, Forbat 1999) and that implementation across all fields of nurse education is a pivotal recommendation for nurse educators. Whilst some Universities' are providing alcohol education the focus of this in many instances appears to be related to physiology, aetiology and pharmacology. The evidence suggests that there is a need for health care professionals to be skilled in alcohol assessment, screening and brief interventions (Watson et al 2010, Holloway et al 2007) and one can conclude that in some instances the curriculum content is not addressing all key elements that will equip future registrants to address patients and clients with alcohol related harm. Furthermore, given the key global and public health alcohol related issues it is important that the content of alcohol education within pre-registration nursing curriculum is evidence based, up to date, contemporary and grounded in a skills based approach (WHO 2011, Gill & O'May 2011, Watson et al 2011). Webster et al (2002) identified the need to ensure that curriculum content was contemporary and contributed to in a collaborative manner with practice partners as a pivotal stakeholder in the educational process. The data from this survey suggests that in many instances full time academics are teaching the alcohol related content and to address the omissions of screening and brief interventions it would be beneficial if not crucial for Universities to engage with practice partners for this aspect of content. This is not a new phenomenon in nurse education as partnership working and engagement in

both theory and practice is a strong and integral part of the student experience, however there is a radical need to ensure that a seamless public health approach to alcohol education for student nurses is implemented in partnership with practice colleagues as part of the student's learning experience. It is our view that given the extent of the evidence base identified earlier and the results from this survey, there is a need for a review of the content of nursing curricula in relation to alcohol education across the UK. It is our experience that nursing curriculum can come under pressure from a plethora of specialisms and sub-specialism in nursing for more content, yet the global evidence (WHO 2011) does suggest that a radical educational approach is required to address an increasing "explosion" of alcohol related issues (Hughes et al 2012). Furthermore, there is a need for further research and evaluation to understand the impact this alcohol focused education and skills is having on the skills of the nurse, the nurses clinical practice and on patient care.

Limitations

The response rate of 26% was lower than we had hoped, however for an online survey this level of response would be expected, and even considered above average (Jones et al. 2008) Accessing the correct holders of information with regards to curriculum content proved difficult. The responses were predominantly from English Universities and the response rate from a Scottish perspective was disappointing considering the increased challenges Scotland faces with its alcohol related issues. With this in mind we have to be cautious when considering the implications of these results in terms of their representativeness which at this time is limited.

CONCLUSIONS

Introduction of the new pre-registration nursing standards of proficiency in September 2010 does offer an opportunity for higher educational providers to provide alcohol education from a generic and field specific perspective. Furthermore, as a global

problem this study has relevance from an international perspective in that it highlights the need for educational providers to focus on the importance of alcohol related problems and minimisation of alcohol related harm; with a clear evidence based focus on the educational delivery of alcohol screening and brief interventions through collaborative and partnership approach to its delivery. This is underpinned by the current policy developments in the UK, supporting the delivery of this method of intervention e.g. Scotland setting HEAT (Health, Efficiency, Access, Treatment) targets in line with SIGN 74 Guidelines (Scottish Government, 2007) and the Government's recently published Alcohol Strategy (HM Government, 2012). This study highlights the need for a greater and more relevant focus of alcohol education to pre-registration nursing students of all fields of practice incorporating an integrated approach across all years of study.

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